



NASA MSFC

Joint Counseling Initiative

March 10, 2009

INTUITIVE Capabilities

INTUITIVE
1ST DECADE
of excellence

EST. 1999



www.irtc-hq.com

Company Background

Our Mission

"To stand above the competition by providing our customers with exceptional services, quality products and unparalleled customer support."

Proven Performance

- 150+ Employees
- Founded in 1999 - Exceptional annual growth rate and financial strength
- 10 Prime Contracts, 20+ subcontracts, 150+ subcontractors/vendors
- 8(a) Small, Disadvantaged Business
- ISO 9001:2008 Registered

Who we are

- Aerospace, engineering and analysis company with a rich history of technical excellence and superior performance
- Solid Leadership Team; routinely augmented with fresh and new talent
- Exceptional record of Program Management/Control

How we do it

- Hire top notch talent
- Latest analysis tools/software
- Subject Matter Experts
- Strategic Partnerships
- Systems Approach to Management



A.R. "Rey" Almodóvar, P.E.
Co- Founder, Chairman and
Chief Executive Officer



Harold R. "Hal" Brewer
Co-Founder and President



COL (R) Tommie Newberry
Executive Vice President

- Successful civilian and military careers
- Over 60 years of combined experience in the Aerospace and Defense Industry
- Strong educational background in engineering and management
- Experience managing large and complex weapons systems
- Proven track record in engineering, acquisition and technical management



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Recent Recognitions



Winner in Huntsville / Madison
Best Places to Work

2007 and 2008
AARP
50 Best
Employers for
Workers Over 50
in the USA



Winner AARP Bernard E. Nash
Award for Innovation for Retiree
Work Opportunities



Inc. 500/5000 List of Fastest
Growing Privately-owned
Businesses

Inc. 500/5000 List for Defense
Contractors

2004, 2005, 2007 and 2008

**Local, state and national recognition doesn't just happen...
...it flows from superior performance.**

- *Hispanic Business* List of 500
Largest Hispanic-Owned U.S.
Businesses
- List of 100 Fastest Growing
Hispanic-Owned U.S.
Businesses
- *Hispanic Enterprise
Magazine* Top 100
Latino Entrepreneurs

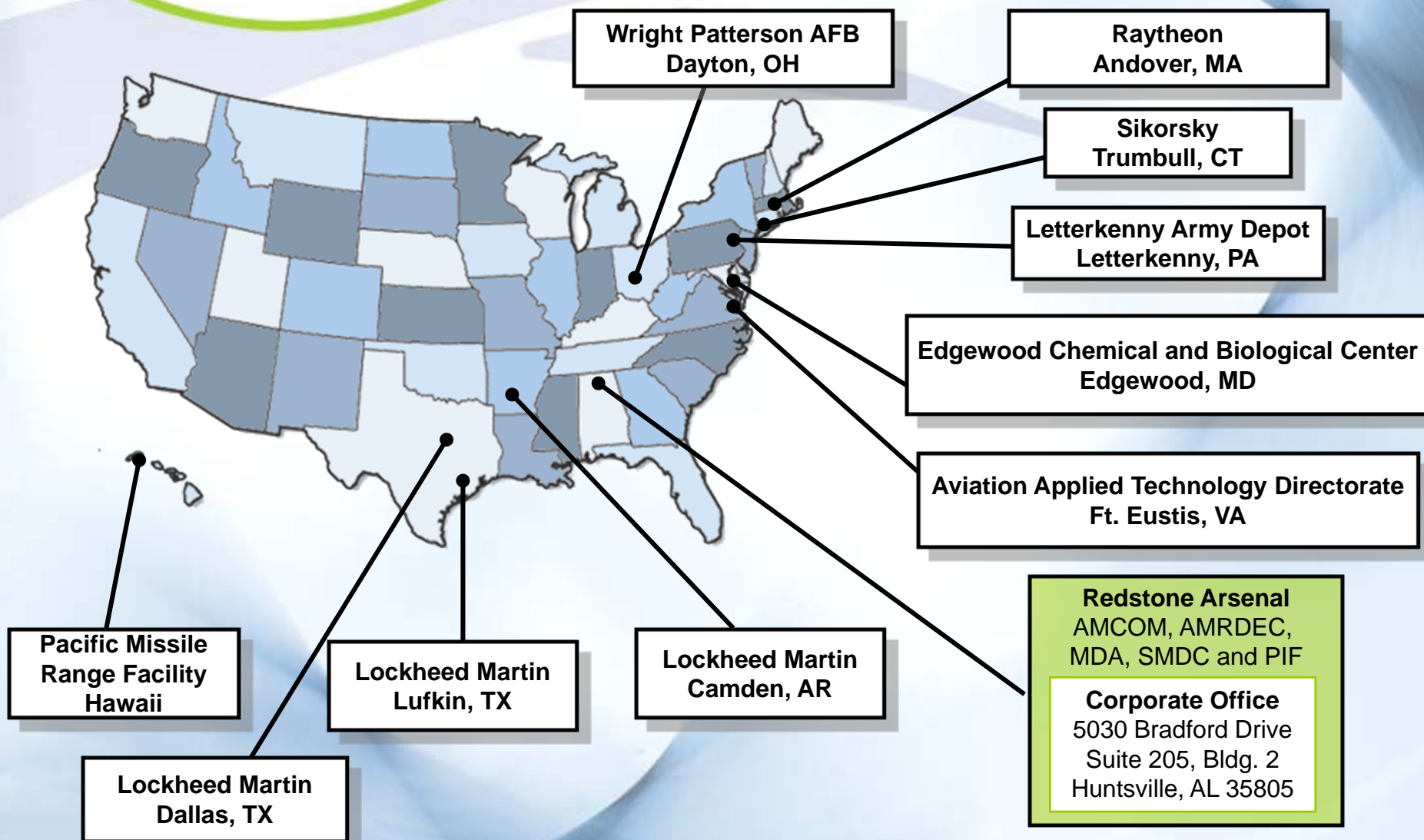


Nominated Twice for Small
Business of the Year,
Huntsville / Madison County
Chamber of Commerce,
Technology Category



Winner, Better Business
Bureau Torch Award for
Workplace Ethics 2007

Support Locations



Experience and Proven Performance

- | | |
|--|--|
| <ul style="list-style-type: none">• Provide depth and breadth across the complete spectrum of Military supported systems and equipment | <ul style="list-style-type: none">• Mature company with established methodologies, processes and tool suites |
| <ul style="list-style-type: none">• Strong experience in managing multiple tasks and subcontractors. 100% of such tasks delivered on time and within or below budget | <ul style="list-style-type: none">• Management with 25+ years of Military experience and Level III Certified in Program Management and Test. |
| <ul style="list-style-type: none">• Management and technical approach based on existing Army Aviation/Missile experience | <ul style="list-style-type: none">• Proven ability to attract and retain highly qualified personnel (on short notice) |
| <ul style="list-style-type: none">• Fiscally stable and timely payments to subcontractors (Prime DUNS Rating 1A2) | <ul style="list-style-type: none">• ISO 9001:2008 Quality System Registered. Proven for insuring contract compliance |
| <ul style="list-style-type: none">• Established Financial and Management system for performance reporting (Deltek GCS Premier) | <ul style="list-style-type: none">• Web based Portal Tools developed for interface with customer and team |

NAICS Codes

NAICS Codes	Description
541710	"Research and Development in the Physical, Engineering, and Life Sciences"
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing
541330	Engineering Services
541611	Management, Scientific, and Technical Consulting Services
561210	Facilities Support Services



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Our NASA Related Capabilities

Systems Analysis and Integration

- *Process Modeling and Simulation*
- *Life Cycle Cost Estimating*
- *Acquisition Planning*
- *Trade-off Analysis*
- *Decision Making*
- *Evaluation and Reliability Analysis*
- *Producibility Analysis*
- *Technical Performance Measures*
- *Systems Engineering Management*
- *Root Cause Analysis*

Project and Technology Management

- *Project Planning, Organization, and Implementation*
- *Acquisition Planning and Management*
- *Budget and Financial Management*
- *Earned Value Management Systems and Processes*
- *Cost and Economic Analysis*
- *Risk Analysis / Management and Technology Forecasting / Management*

Mechanical and Electrical Engineering and Design

- *Development and Rapid Prototyping*
- *Systems Design, Engineering, and Integration*
- *Technology Transfer*
- *Mechanical Design, Engineering, and Analysis*
- *Equipment Modifications*
- *Reverse Engineering, Electrical Design, Engineering, and Analysis*
- *Partnerships with Electronic, Material, and Mechanical Fabricators*

Production Systems Analysis and Support

- *Manufacturing Modeling and Simulation*
- *Production Line Validations*
- *Product Process Verification Reviews*
- *Production Readiness Reviews*
- *Lean Manufacturing*
- *Value Engineering*

Simulation Analysis and Modeling

- *New and Existing Design Evaluations*
- *Cause of Failure Evaluations and Troubleshooting*
- *Parts Substitution and Parts Failure Analysis*
- *Overstress Analysis and Verification*
- *Operational Design Margin Verification*
- *Electronic Circuit Simulation*

Quality and Reliability Support

- *Quality Management Systems and Compliance*
- *Design Reviews*
- *Subcontractor / Vendor Control*
- *Quality and Reliability Engineering*
- *FRACAS Development*

Technical Services

- *On-Site Specialty Engineering and Technical Services*
- *Second Source Analysis and Validations*
- *Test Support and Analysis*
- *Energy Assessments*
- *Subject Matter Experts*
- *Red Teams and 3rd Party Logistics/Logistics Analysis*

- Strong experience as a Prime managing multiple tasks and subcontractors. 100% of such tasks delivered on time and within or below budget.
- Mature company with established methodologies, processes and tool suites.
- Expertise across multiple Aerospace Engineering disciplines.
- ISO 9001:2008 Quality System Registered.
- Customized support levels (onsite, offsite, virtual).
- SDB / SB / 8(a) Credit.
- Sole Source 8(a) MSFC contract ready to award. NASA POC: Jane Thomas 544-7893

For More Information Please Contact

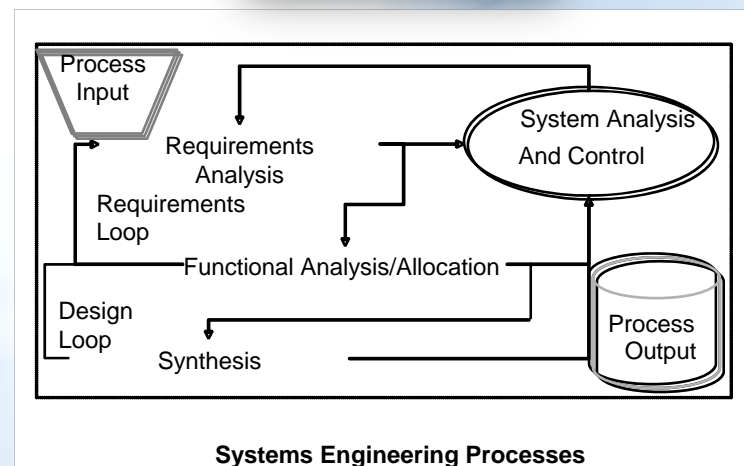
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Backup Slides

Systems Analysis and Integration

INTUITIVE provides system engineering, technology integration and technology implementation support to customers transitioning from development through production. Our subject matter experts offer in-depth knowledge of technologies, tools and processes necessary to achieve feasible solutions that meet performance, cost and schedule objectives. Our services include program plans ranging from system definition to validation.

- Requirements Definition and Analysis
- Systems Engineering Approach
- Life Cycle Cost Estimating
- Process Modeling and Simulation
- Acquisition Planning
- Trade-off Analysis



Project and Technology Management

INTUITIVE applies scientific management tools and hands on experience to monitor cost, schedule and performance of production, development and technology projects. Our effective team leadership skills and customer oriented management style have been proven to develop and sustain team commitment and ownership.

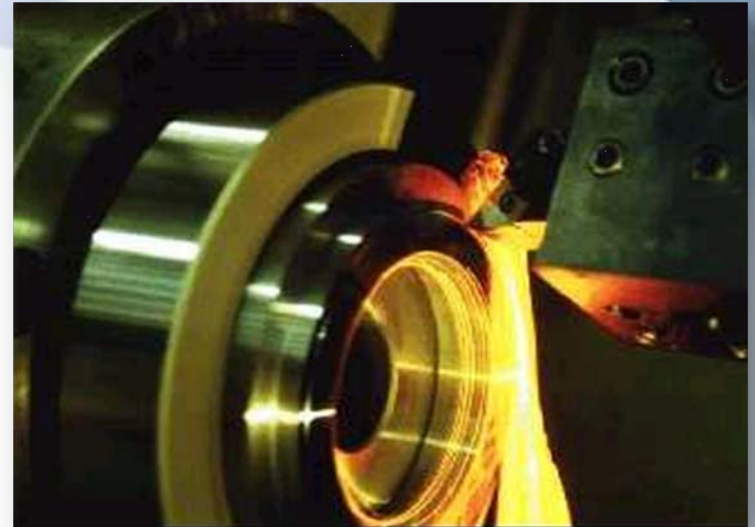
- Project/Technology Management
- Project Control Metrics (C-S-P)
- Business Process Re-engineering
- Risk Analysis / Management
- Acquisition Planning Management
- Economic Analysis



Production Systems Analysis and Support

INTUITIVE provides a wide range of services in production, industrial and manufacturing engineering. Our personnel have experience supporting existing production systems and assisting programs transitioning from development to full rate production.

- Manufacturing Modeling and Simulation
- Manufacturing Systems Planning and Facilities Layout
- Source / Vendor Validations
- Production Line and Process Validation
- Industrial Engineering
- Manufacturing Management
- Lean Manufacturing





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Quality and Reliability Support

INTUITIVE's Quality Team is led by recognized a Subject Matter Expert with extensive experience in Quality and Business Management Systems and process evaluation, implementation, training, compliance and improvement initiatives.

- Quality Management and Compliance
- Design Reviews
- Statistical Process Control and Six Sigma
- Defect Tracking/Monitoring Systems
- Product/Process Surveillance
- Subcontractor / Vendor Control
- ESS and ESD Systems
- Receiving Inspection
- Calibration/Metrology

ISO 9001:2008
REGISTERED

Certifications

- IRCA Certified Quality Management Systems Lead Auditor
 - ✓ ISO 9001:2008
 - ✓ IECQ ECMP (Electronic Component Management Plans) Certification for accreditation of Aerospace component manufacturers
- CMMI, FAA, DoD, NASA and many other standards
- ASQ Fellow
- ASQ Certified Auditor
- ASQ Certified Manager of Quality/Organizational Excellence

Technical Services

INTUITIVE is a proven expert providing timely and cost effective technical services. We specialize in providing subject matter expertise, technical liaison, problem solving, troubleshooting and in-plant resident support to the commercial and military industry. Our teaming and hands on approach to provide a value added service has established our reputation as the premier provider of on-site technical support services.

- On-Site Specialty Engineering and Technical Support
- Source Analysis and Validations
- FOD Elimination
- Red Teams
- Energy Assessments
- Subject Matter Expertise
- Special Training



Test and Evaluation Support

- Definition of Test Requirements
- Test Plan Development
- Performance Testing
- Environmental Testing
- Reliability Qualification
- Maintainability Demonstration
- Support Equipment Test
- Technical Data Verification
- Software Verification
- Training Validation

INTUITIVE has direct experience in all Test Phases

Conceptual Design	Preliminary Design	Detailed Design	Production	Life-Cycle Support
Analytical Design and Analysis using simulations and analytical models: PSpice, ModelSim, Quartus, SCAT, MathCAD, Simulink, NASTRAN, ANSYS, FEMAP, ALGOR, Fortran, C++, Matlab, AutoCad, CadKey, SolidWorks	Type 1 Evaluation of engineering and test models, system components, breadboards, mockups, rapid prototypes.	Type 2 Evaluation of prototype and production models. Production Sampling	Type 3 Evaluation of production units at designated/3 rd party test areas	Type 4 Evaluation of the system in operation use, during maintenance and overhaul, following modernization /technology insertion

THAAD's laser initiator ordnance system (LIOS) optical block

- Design, development and testing of Laser Initiator Device
- Developed Test and Evaluation Plans
- Conducted verification test of prototype hardware (including shock, vibration, electronic, flow, heat load and EMI)



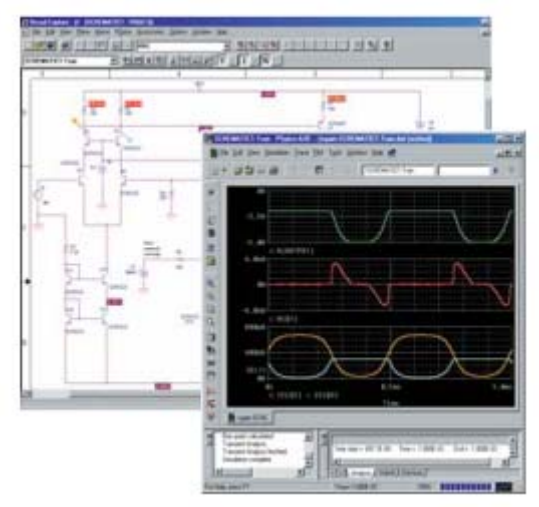
INTUITIVE's personnel have extensive experience working with ATEC/ATC/OTC in developing and conducting major developmental and operational system tests. Experience includes Universal Documentation System, Range Planning and Coordination, Test Resource Planning, Automated Evaluation Tool development and Test Reporting.



Electronic Design and Analysis

INTUITIVE engineers are recognized experts in performing high-fidelity design, analysis, simulation and modeling of electronic circuits and systems.

- Circuit Card Design & Layout
- Spice modeling for all types of electronic parts and complex electronic modules, motors, and batteries
- Electronic simulation analysis and modeling (ESAM) applications of circuit operation over nominal and worst-case conditions of temperature, tolerance, and ageing to validate system performance and identify design deficiencies
- Identification of safety issues with electronic designs, including sneak circuit analysis
- Identify electrically overstressed parts
- Analyze replacements for obsolete parts
- Determine root cause of failures and develop and validate design solutions
- Failure analysis of electronic designs, including failure modes and effects criticality analysis (FMECA)



***Experts on electronic
circuit simulation using
Pspice***

Programmable Logic

Programmable logic design

- Design and development of Field Programmable Gate Arrays (FPGA) and Complex Programmable Logic Devices (CPLD)
- HDL Simulation, FPGA synthesis, integration
- Structured design procedure and HDL coding standard with revision control

Digital signal processing (DSP) algorithm simulation and modeling

- FPGA Development is digital design and implies fixed point operations on a specific target with limited resources
- Model Based Design is a method of modeling the design implementation as it will run on the target to eliminate errors early in the design cycle
- Provides a bit and cycle accurate model of the algorithm prior to implementation, including:
 - Fixed point signal specifications
 - Arithmetic approximations
 - Memory and buffering to maintain causal operations
 - Can use automatic HDL generation for fast prototyping
 - The implementation model reduces technical, schedule, and cost risk

Technical Software Tools

Area	Design Tools and Techniques
Electronic Design	PSpice, ModelSim, Quartus, SCAT, MathCAD, Matlab, Simulink, C++
Mechanical Design	Solid Works, NASTRAN, ANSYS, FEMAP, ALGOR, Fortran, C++, Matlab, CadKey, Pro-E
Simulation	Simul8, ProModel, Matlab, Simulink, @ Risk, 3D Human Factors
Decision Analysis	Analytical Hierarchy Process (AHP), OR techniques such as: multivariate analysis, mathematical modeling, simulations, fuzzy logic and neural networks, @ Risk simulation
Systems Engineering	Turbo BPR, CASEwise, Easy ABC Fast Track ABM, Criteria Driven Management Analysis (CDMA), CASEwise, COGNOS, WinSight, CORE, Doors, Risk, MsProject, SRM Simulation Tools (SPP)
Reliability/Quality/ Safety Assurance	Rellex / Prism Reliability Software, @ Risk software, FMECA, Fault Tree Analysis, Root Cause Analysis, Portal Page Development, Six Sigma/Lean Methodology, Mil-Std 882D System Safety

***We provide all tools and techniques necessary
to complete the project.***